SUBCHAPTER 9 INTERIM NET METERING, SAFETY AND POWER QUALITY STANDARDS FOR WIND AND SOLAR PHOTOVOLTAIC SYSTEMS

14:4-9.1 Scope

These rules govern net metering standards for electric power suppliers, basic generation service providers and electric distribution companies.

14:4-9.2 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

"Act" means the "Electric Discount and Energy Competition Act" (N.J.S.A. 48:3-49 et seq.).

"Annualized period" means 12 consecutive monthly billing periods beginning with the first customer billing period in which net metering becomes applicable.

"Avoided cost of wholesale power" means the average locational marginal price of energy in the applicable utility's transmission zone.

"Basic generation service" means electric generation service that is provided, pursuant to N.J.S.A. 48:3-57, to any customer that has not chosen an alternative electric power supplier, whether or not the customer has received offers as to competitive supply options, including, but not limited to, any customer that cannot obtain such service from an electric power supplier for any reason, including non-payment for services. Basic generation service is not a competitive service and shall be fully regulated by the Board.

"Board" means the New Jersey Board of Public Utilities or any successor agency.

"Customer-generator" means a residential or small commercial customer that generates electricity, on the customer's side of the meter, using wind or solar photovoltaic system.

"Electric distribution company" means an electric public utility, as the term is defined in N.J.S.A. 48:2-13, that transmits or distributes electricity to end users within this State.

"Electric generation service" means the provision of retail electric energy and capacity which is generated off site from the location at which the consumption of such

electric energy and capacity is metered for retail billing purposes, including agreements and arrangements thereto.

"Electric power supplier" means a person or entity that is duly licensed pursuant to the provisions of the Act to offer and to assume the contractual and legal responsibility to provide electric generation service to retail customers, including load serving entities, marketers and brokers that offer or provide electric generation service to retail customers. The term excludes an electric public utility that provides electric generation service only as basic generation service pursuant to N.J.S.A. 48:3-57.

"IEEE" means the "Institute of Electrical and Electronic Engineers."

"Net metering" means that the customer-generator is billed according to the difference between the amount of electricity supplied by the electric power supplier or basic generation service provider in a given billing period and the electricity delivered from the customers' side of the meter using wind or solar photovoltaic systems, with customer generation in excess of electricity supplied credited over an annualized period.

"Network distribution system" means an electric delivery system characterized by multiple uni-directional sub-transmission or primary-voltage feeders that are transformed and converge to a secondary service voltage level, where secondary conductors are commonly interconnected via automated secondary switches. The vast majority of network distribution systems consist entirely of underground construction and are primarily in urban areas.

"Non-discriminatory rates" means rates that are identical, with respect to rate structure, retail rate components, and any monthly charges, to the rates the customer-generator would have been charged if not a customer-generator.

14:4-9.3 Net metering standards

(a) All electric power suppliers and basic generation service providers shall offer net metering at non-discriminatory rates to their residential and small commercial customers that generate electricity, on the customer's side of the meter, using a wind or solar photovoltaic system.

(b) A standard contract or tariff providing for net metering shall be developed and made available by each electric power supplier and basic generation service provider to eligible customer-generators on a first-come, first-served basis.

(c) Electric distribution companies shall be permitted to install a second meter, at their expense and with the customer's permission, to measure gross kilowatt hours (Kwh) delivered from customer-generators.

1. If such a meter is installed, it shall be an electronic meter capable of hourly readings. If such a meter is installed, the utility shall supply its readings to the customer upon request, up to twice per calendar year. These provisions notwithstanding, a single meter shall be sufficient for any residential or small commercial customer to take advantage of net metering under these standards.

(d) When the amount of electricity delivered by the customer-generator plus any kilowatt hour credits held over from previous billing periods exceed the electricity supplied by the electric power supplier or basic generation service provider, the electric power supplier or basic generation service provider, as the case may be, shall credit the customer-generator for the excess kilowatt hours until the end of the annualized period at which point the customer- generator will be compensated for any remaining credits at the electric supplier's or basic generation service provider's avoided cost of wholesale power.

1. When a customer-generator switches electric suppliers, the electric power supplier or basic generation service provider with whom service is terminating shall treat the end of the service period as if it were the end of the annualized period.

(e) Net metering will be reviewed by the Board and may cease to be offered, upon Board authorization, whenever the total rated generating capacity owned and operated by net metering customer-generators Statewide equals 0.1 percent of the State's peak electricity demand or the annual aggregate financial impact to electric power suppliers and basic generation service providers Statewide, as determined by the Board, exceeds $2,000,000, whichever occurs first.

1. The Board will conduct a public hearing and provide opportunity for public comment prior to ceasing any net metering offering(s).

(f) Each basic generation service provider and electric power supplier shall submit an annual report to the Board indicating the rated generating capacity owned and operated by its net metering customer-generators, the net Kwh received from customer-generators and the aggregate value of net metering credits provided during the previous 12 months. Annual reports shall be due October 31st of each year for the period ending September 30th of each year.

1. For purposes of this section, "aggregate value of net metering credits" means the total amount of energy delivered by customer-generators.

(g) Customer-generators will be eligible for net metering up to a maximum allowable capacity per customer-generator of 100 Kw, but not to exceed the current peak electric needs of its own residential or small commercial facility.

14:4-9.4 Safety and power quality standards for customer-generator facilities

(a) Interconnection costs shall be paid by the customer-generator and shall be in addition to any line extension charge required to meet service requirements.

(b) Customer-generators shall bear the cost of meeting all applicable safety and power quality standards approved by the National Electrical Code, Institute of Electrical and Electronics Engineers, and accredited testing institutions, such as Underwriters Laboratories.

(c) Customer-generator facilities rated up to and including 10 kilowatts (Kw) except for those facilities served by network distribution systems, shall comply with all applicable safety and power quality standards approved by the National Electrical Code, Institute of Electrical and Electronics Engineers, and accredited testing institutions, such as Underwriters Laboratories, and specifically IEEE Standard 929-2000.

(d) Customer-generator facilities rated above 10 Kw and not more than 100 Kw, and those rated 10 Kw and less and served by network distribution systems, shall comply with all applicable safety and power quality standards approved by the National Electrical Code, Institute of Electrical and Electronics Engineers (IEEE), accredited testing laboratories such as Underwriters Laboratories (UL), and electric distribution company tariffs and/or standards

(e) If a customer-generator uses an inverter that complies with IEEE Standard Number 929 (IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems) and is on the list of inverters published by Underwriters Laboratories in UL 1741, the inverter shall be presumed to be acceptable and the electric distribution company shall not require additional testing for the inverter. IEEE standards can be obtained at http://standards.ieee.org. Information on UL 1741 can be found at www.ul.com.

14:4-9.5 Application for a net metering interconnection

(a) This section sets forth the standards and procedures through which a customer-generator, as defined at N.J.A.C. 14:4-9.2, may apply for permission to connect to an electric distribution company's system for the purpose of net metering.

(b) An application for interconnection shall be submitted to the electric distribution company on the Interconnection Application/Agreement For Net Metering Systems form provided on the Board's website at www.bpu.state.nj.us, or on paper by contacting the Board at 973-648-3717. The application form may also be obtained from the Electric Distribution Company. The application form will require the following types of information:

1. Basic information regarding the applicant and the electricity supplier(s) involved;
2. Information regarding the type and specifications of the customer-generator facility;
3. Information regarding the contractor who will install the customer-generator facility; and
4. Certifications and agreements regarding utility access to the customer-generator's property, emergency procedures, liability, compliance with electrical codes, proper operation and maintenance, receipt of basic information; and
5. Other similar information that is necessary to determine compliance with this chapter.

(c) The electric distribution company may charge a customer-generator an application fee, but is not required to do so. If an application fee is charged, the fee shall not

exceed $100.00.

(d) An electric distribution company shall respond to a properly completed interconnection application within 30 days after the application is submitted. The electric distribution company shall provide the customer-generator with either of the following responses:

1. Approval of the interconnection. An approval shall authorize the customer-generator to connect their equipment to that of the electric distribution company and to begin net metering provided that:

i. The interconnection has been approved by the appropriate electrical code official; and

ii. All other requirements of this subchapter have been met; or

2. Denial of the application. A denial shall include:

i. An explanation of the reason(s) for the denial; and

ii. A list of additional information and/or modifications to the customer-generator's facility which would be required in order to obtain an approval. For example, the denial might require more detailed information on an inverter or other piece of equipment, or an interconnection study to ensure that the power generated by the customer-generator could be accommodated by the electric distribution company's system.

(e) Upon review of an interconnection application, the electric distribution company may determine that it needs to conduct an interconnection study in order to complete its review of the application. If a customer-generator's facility complies with N.J.A.C. 14:4-9.4, the electric distribution company may not charge the customer-generator for an interconnection study unless the interconnection application meets one or more of the following criteria:

1. The application is for connection to a single-phase radial feeder, and the combined capacity of all generation equipment connected to that feeder by a source other than the utility will exceed 50 kilowatts if the connection is approved;
2. The application is for connection to a three-phase radial feeder, and the combined capacity of all generation equipment connected to that feeder by a source other than the utility will exceed 150 kilowatts if the connection is approved; or
3. The application is for connection to a network distribution system, as defined at N.J.A.C. 14:4-9.2, and:
   i. The capacity of the customer-generator's facility is greater than one hundred kilowatts; or
   ii. The combined capacity of all generation equipment connected to that network distribution system by a source other than the utility will exceed 50 percent of the minimum load on the network bus to which the customer-generator facility is connected, if the connection is approved.

(f) If an electric distribution company determines in accordance with (e) above that an interconnection study is necessary, the electric distribution company may charge the customer-generator for the cost of performing an interconnection study. The amount of

the fee shall be determined as follows:

1. Determine the actual number of days spent by the electric distribution company in performing the interconnection study. If the days actually spent exceed the maximum number allowed in Table A below, reduce the number of days to the applicable maximum allowed under Table A; and
2. Multiply the number of days determined under (f)(f)1 above by $800. The resulting amount is the fee for the interconnection study.

TABLE A
Maximum Number of Days For An Interconnection Study

Customer-generator facility type	**Electric system to which customer-generator will connect**	**Total aggregate generation capacity connected to electric system by non-EDC sources**	**Maximum number of days**
Single phase	Single phase feeder	More than 50 kw but no more than 100 kw	3 person-days
Single phase or 3 phase	3 phase feeder	More than 150 kw but no more than 300 kw	3 person-days
Any facility	Network distribution system	Up to 100 kw	5 person-days
Any facility	Any system	Greater than the maximums above[1]	Actual time spent[2]

(g) An electric distribution company that charges a fee for an interconnection study shall provide the customer-generator with a bill that includes a clear explanation of all charges. In addition, if the interconnection study fee is calculated using actual time spent under Table A above, the electric distribution company shall provide to the customer-generator, prior to the start of the interconnection study, an estimate of the number of days that will be needed to complete the interconnection study, and an estimate of the total interconnection study fee.

(h) An electric distribution company shall not charge a customer-generator any fee or other charge for connecting to the electric distribution company's equipment for the purposes of net metering, except for the application fee provided for at (c) above and the

[1] In accordance with (e) above, a customer-generator facility that generates less than the minimums above would generally not require an interconnection study.

[2] If the interconnection study fee is calculated using actual time spent, the electric distribution company shall provide a fee estimate in accordance with (g) above.

interconnection study fee provided for at (f) above.

(i) If a customer-generator's facility complies with all applicable standards in N.J.A.C. 14:4-9.4(c), (d) and (e), the facility shall be presumed to comply with the technical requirements of this subchapter. In such a case, the electric distribution company shall not require a customer-generator to install additional controls, perform or pay for additional tests, or purchase additional liability insurance in order to obtain approval to connect for net metering purposes.

(j) An electric distribution company shall not approve an application for interconnection to a network distribution system if the customer-generator's facility has a real potential to export power to the common network bus. For a customer-generator facility to be installed in a network area, the maximum capacity of the customer-generator facility must be no more than the lesser of the following:

1. One hundred kW; or
2. Fifty percent of the minimum load on the network bus to which the customer-generator's facility will be connected. For a solar photovoltaic customer-generator facility, this 50% minimum shall be determined as a function of the minimum load occurring during an off-peak daylight period.

(k) Once a net metering interconnection has been approved under this subchapter, the electric distribution company shall not require a customer-generator to test its facility except for the following:

1. An annual test in which the customer-generator's facility is disconnected from the electric distribution company's equipment to ensure that the inverter stops delivering power to the grid. A log shall be kept of these tests; and
2. Any manufacturer-recommended testing.

(l) An electric distribution company shall have the right to inspect a customer-generator's facility both before and after interconnection approval is granted, at reasonable hours and with reasonable prior notice to the customer-generator. If the electric distribution company discovers a problem with the customer-generator's facility, the electric distribution company may require any actions necessary to ensure that the customer-generator's facility complies with this subchapter.